

AMENDMENTS TO THE CLAIMS

Claims 1-9 (Canceled)

10. (New) A process for preparing a high-concentration formaldehyde solution by removing water from a lower-concentration formaldehyde solution having a formaldehyde content of from 5 to 50% by weight, in which the lower-concentration formaldehyde solution is fed to a preheater and heated in the preheater, depressurized via a pressure maintenance device and concentrated in a helical tube evaporator to give a vapor stream and the high-concentration formaldehyde solution as bottom stream, wherein the heated lower-concentration formaldehyde solution is depressurized in the pressure maintenance device to give a two-phase mixture which is fed into the helical tube evaporator.
11. (New) The process according to claim 10, wherein the high-concentration formaldehyde solution in the bottom stream of the helical tube evaporator contains at least 70% by weight of formaldehyde.
12. (New) The process according to claim 10, wherein a stripping gas is mixed into the two-phase mixture before it is fed into the helical tube evaporator.
13. (New) The process according to claim 10, wherein a stabilizer is introduced into the two-phase mixture before it is fed into the helical tube evaporator.
14. (New) The process according to claim 10, wherein a wavy film flow is established in the helical tube evaporator by appropriate choice of the geometry of the evaporator and also of the operating conditions.
15. (New) The process according to claim 10, wherein devices for achieving intensive mixing of the two-phase mixture are provided in the helical tube evaporator.
16. (New) The process according to claim 10, wherein the vapor stream from the helical tube evaporator is partially or completely condensed in a condenser.
17. (New) The process according to claim 16, wherein the condensed part of the vapor stream is recycled to the preheater.

18. (New) The process according to claim 10, wherein all or part of the bottom stream from the helical tube evaporator is recycled to the preheater.
19. (New) The process according to claim 11, wherein the high-concentration formaldehyde solution in the bottom stream of the helical tube evaporator contains at least 75 % by weight of formaldehyde.
20. (New) The process according to claim 12, wherein the stripping gas is nitrogen.
21. (New) The process according to claim 13, wherein the stabilizer is methanol, ethanol, a propanol, a butanol, urea or melamine.
22. (New) The process according to claim 14, wherein the operating conditions are the total mass flow and the gas content of the two-phase mixture which is passed through the helical tube evaporator.
23. (New) The process according to claim 15, wherein the devices for achieving intensive mixing of the two-phase mixture are valves, flow restrictors, ribs or knitted wire meshes.
24. (New) The process according to claim 16, wherein the condenser is a surface condenser.
25. (New) The process according to claim 24, wherein the surface condenser is a quench condenser.